

Performance Assessment

Ames Laboratory

Calendar Year 2004



**U.S. Department of Energy
AMES SITE OFFICE**

June 9, 2005

Calendar Year 2004 Performance and Fee Determination for Ames Laboratory

In accordance with the terms of contract W-7405-ENG-82 between the Department of Energy (DOE) and Iowa State University (ISU) for the management and operation of Ames Laboratory, the incentivized portion of the Laboratory's performance is comprised of performance measures within the two areas of Science Programs and Critical Operations. A summary adjectival rating is issued for each area by DOE. The Ames Site Office completes a written assessment of the Laboratory's performance at mid-year and at the conclusion of the annual rating cycle. As a result of the Laboratory's research efforts for calendar year (CY) 2004, a rating of "outstanding" was achieved in both Science Programs and Critical Operations. The following matrix identifies the incentivized areas and ratings used to determine the CY 2004 performance fee.

CY 2004 Performance Measures Ratings

CY 2004 Performance Areas	DOE Rating	Weight
Science Programs (Functional Area)		
Science and Technology	Outstanding	70%
Critical Operations (Functional Areas)		
Environment Safety and Health	Outstanding	20%
Strategic Guidance, Oversight, and Management	Excellent	10%

Science Programs

For CY 2004, the Office of Science (SC) overall appraisal of the science and technology programs was "outstanding" on a scale of unsatisfactory, marginal, good, excellent and outstanding. The rating is based on a weighted average of performance evaluations provided by each SC program office according to the value of each office's expenditures. Three SC program offices contributed to this rating: Basic Energy Sciences (BES), Biological and Environmental Research (BER), and Advanced Scientific Computing Research (ASCR). The overall rating is a composite of the SC assessment of the Laboratory's scientific performance against three measures contained in the contract: (1) quality of research, (2) relevance to DOE missions and national needs, and (3) effectiveness and efficiency of research program management.

Scientific program reviews conducted during 2004 resulted in strong reviewer assessments and the annual programmatic performance evaluations indicate that the science programs continue to be highly relevant to DOE and well-managed. The Laboratory was noted as a major source of new materials and scientific expertise in materials discovery. The high degree of collaboration and cooperation, and the continued hiring of promising young scientists also indicate effective operations. Improved partnering between the Laboratory and ISU is resulting in progress in scientific areas of interest to BES. There also has been a significant redirection of research

efforts in chemistry from single investigator projects to coordinated multi-investigator efforts of greater impact. The overall program ratings for each of the three programs were in the "outstanding" range. Full narrative evaluations were provided by SC under separate reports which are enclosed.

CY 2004 Office of Science Ames Laboratory Appraisal

	Quality	Relevance	Management	Overall Rating
BES	3.5-O	3.7-O	3.6-O	3.6-O
BER	3.8-O	3.6-O	3.5-O	3.6-O
ASCR	3.7-O	3.6-O	3.6-O	3.6-O
Overall	3.5-O	3.7-O	3.6-O	3.6-O

Critical Operations

DOE assessed Ames Laboratory performance in critical operations as "outstanding" for CY 2004. The following provides a summary of each of the two functional areas under critical operations: 1) Environment, Safety and Health (ES&H) and 2) Strategic Guidance, Oversight and Management:

Environment Safety and Health

DOE assessed Ames performance in this area as "outstanding". During CY 2004 Laboratory management continued to demonstrate strong commitment to effective implementation of Integrated Safety Management (ISM). The Laboratory continues to reduce the number of concerns identified during walk-through with a 30% decrease from the 4-year rolling average. 100% of the related corrective actions were completed within schedule. A decrease from the 4-year rolling average was noted in the number of employee generated safety and security concerns. Tracking and trending data is used effectively to correct problem areas. For example, findings in electrical safety have been decreasing steadily since CY 2000, with a 33% decrease in the 4-year rolling average over the past year. Significant progress was made in implementing an Environmental Management System and incorporating this system under the umbrella of ISM. Continued reductions were achieved in the radioactive materials inventory. The Laboratory implemented significant changes to their event reporting process and their corrective action development, tracking and verification process, which have proven to be successful improvements to their ISM system. Reporting to DOE has been proactive and prompt. 100% of corrective actions for reviews and occurrences were completed on schedule. The Laboratory's injury/illness cases were slightly higher than CY 2003, but 25% better than the 4 year rolling average. All of the 230 deficiencies noted during the Occupational Safety and Health Administration (OSHA) audit have been addressed. The Laboratory's performance data and the results and knowledge gained through the Ames Site Office operational awareness activities support the "outstanding" rating for this critical performance area.

Strategic Guidance, Oversight and Management

DOE assessed Ames performance in this area as "excellent". Involvement by ISU is increasingly important to assist with enhancing the Laboratory's core research programs, driving new initiatives and with ensuring oversight of Laboratory operations. In general, Laboratory management has been highly responsive in this area, but ISU could increase their involvement in reviews and oversight to reach the outstanding level.

Each of the four expectations for the first measure associated with planning, staffing and problem solving was met. ISU and the Ames Laboratory management continue to lead effective planning efforts; and to implement the new initiatives and complete strategic hires. The Laboratory continues to develop initiatives first presented in the 2003 Institutional Planning Meeting such as Transformation Pathways in the Condensed State, Single Cell Biology Initiative and Biology as a Materials Science and the Wind/Hydrogen Project. Input from the 2004 Institutional Planning Meeting was used to refocus and as necessary to redirect these efforts. In some cases smaller scale research efforts are being developed to get the research started. The initiative on Bio and Bioinspired Materials has received interest and support from BES. The Laboratory continues to initiate other ideas to strengthen their fundamental research in materials science. During late 2004 the Laboratory proposed an initiative to construct and operate a set of electrostatic levitation chambers as a user facility coupling macroscopic measurements in Ames with microscopic measurements at the APS and SNS for fundamental studies in materials science not otherwise available in the United States. These efforts indicate the Laboratory continues to actively plan and pursue new areas of research, particularly with regard to building on their core strengths. The Laboratory and ISU have been successful in recruiting strategic hires. ISU has been supporting these efforts through sharing the costs for the new hires. In some cases ISU covers the costs for the academic year, while the Laboratory covers the expense for the summer.

For the second measure, although evidence was provided of involvement by ISU in various improvement opportunities and reviews of Laboratory science programs and operations, it was not sufficient to reach the outstanding level of the performance expectation of providing for the review of selected business management systems and participation in peer reviews of scientific programs. An audit conducted during CY 2004 performance period by the Inspector General on royalty and patent income identified some concerns. For these reasons, this area is rated excellent, which is lower than the Laboratory's self-assessment rating of outstanding for this area.

The System Assessment Measures (SAMs) are used to monitor, evaluate, and drive improvements in the general operations of the Ames Laboratory. While important to the success of the Laboratory mission, the SAMs are not associated with fee. Sixteen separate functional areas constitute the CY 2004 SAMs. Each area was assessed and rated by the assigned functional area subject matter expert(s) within the Ames Site Office or through support from the Chicago Office. Details of the functional reviews are provided to the contractor. The following matrix identifies the functional areas and their associated ratings:

CY 2004 System Assessment Measures Ratings

BUSINESS OPERATIONS (Functional Areas)	Final DOE Rating
Financial Management	Outstanding
Diversity	Good
Procurement	Outstanding
Training	Outstanding
Scientific and Technical Information	Excellent
Information Management	Outstanding
Safeguards and Security	Outstanding
Cyber Security	Outstanding

Counterintelligence	Excellent
Human Resources	Excellent
Personal Property	Excellent
Communications and Trust	Outstanding
Infrastructure - Energy Management	Outstanding
Infrastructure - Facilities Management	Outstanding
Infrastructure - Maintenance	Outstanding
Technology Transfer/Work for Others	Excellent

1. Financial Management

DOE has determined the Laboratory's performance in the functional area of Financial Management to be rated as "Outstanding".

- There were no findings from the budget validation review and financial statements were completed in an accurate and timely manner.
- The Laboratory is always trying to improve performance in the financial areas. The areas of cash management and budget formulation were assessed in this year's self-assessment; and no areas for improvement were noted.
- In addition, to the above mentioned items, Ames Laboratory maintains outstanding interaction and communications with DOE.
- DOE's rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

2. Diversity

DOE has determined the Laboratory's performance in the functional area of Diversity to be rated as "Good".

- According to the data provided, the expectation to increase or maintain workforce diversity was not met. There was a 4% decrease in minority representation from prior year and a 7% decrease in female representation. There was no justification provided to explain this change, except that the overall workforce decreased.
- During the year there were no opportunities for improvement identified for diversity. As in prior years, diversity is not included in the discussion of the organizational overview of the Human Resources office. This function is a collateral duty of one in the HR office and it is recommended that it should be identified as part of the HR mission.
- Overall, the self-assessment for diversity is insufficient. The expectation to increase or maintain diversity was not met and there is no information provided to account for the decrease. Based on the above analysis, DOE assigns a rating of good.

3. Procurement

DOE has determined that Ames performance in the functional area of Procurement meets the criteria for an "Outstanding" rating.

- The Laboratory performed a Balanced Score Card (BSC) assessment of the procurement function according to their BSC assessment plan. The Laboratory achieved 13 out of 14 BSC objectives, which correlates to an "Outstanding".

The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

4. Training

DOE has determined the Laboratory's performance in the functional area of Training to be rated as "Outstanding".

- The Laboratory has a well defined system of maintaining and tracking training records for each of its employees. Improvements were made in computer-based training; and updates were made to the classroom training modules on a regular basis. The Training Needs Questionnaire process was modified to allow the Laboratory to make improvements to benefit the organization and its employees. The Laboratory's self-assessment thoroughly addressed improvements, significant changes, and opportunities for improvement and/or notable practices.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

5. Scientific & Technical Information

DOE has determined the Laboratory's performance in the functional area of Scientific and Technical Information to be rated as "Excellent".

- Ames has met its objective and measure of submitting 100% of published STI products (journal articles, conference papers, R&D reports, theses) electronically to OSTI within 15 days of Ames receipt. Achievements such as the Construction of the STI desk manual which assist in the training of all employees and adding an additional employee to assist and provide back-up to the STI Manager have provided the laboratory with greater efficiency in this area. However, there are areas of opportunity available such as the Development of a web page containing the full text of all Ames STI products and linked to the new STI database. This webpage will assist Ames in complying with OSTI's harvesting initiative. In addition, Construction of two new reports from the current STI database, one which will indicate submissions by scientific program, and the second for tracking and closing each submission. These are only some of the opportunities the Laboratory must pursue for continuous improvement.
- The DOE rating as stated above is not consistent with the Laboratory's self-assessment rating of "Outstanding".

6. Information Management

DOE has determined the Laboratory's performance in the functional area of Information Management to be rated as "Outstanding".

- Information Management Services (IMS) has reviewed the Information Management section of the Ames Laboratory CY 2004 Self-Assessment Report and concurs with the Laboratory's overall rating of "outstanding". Progress has been made in addressing improvement opportunities in the areas of information system enhancement and computer network infrastructure. In addition, the Laboratory has identified additional improvement opportunities to ensure the provision of effective IM support continues.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

7. Safeguards and Security

DOE has determined the Laboratory's performance in the functional area of Safeguards and Security to be rated as "Outstanding".

- The self assessment indicates that the required network scans were conducted in a timely manner and that Ames Laboratory system administrators did a good job of applying timely security updates to their systems. Some statistics on results of the scans and implementation of security updates would have been useful, but it is agreed that performance at the outstanding level was achieved.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

8. Cyber Security

DOE has determined the Laboratory's performance in the functional area of Cyber Security to be rated as "Outstanding".

- The self assessment reviewed eight improvements made to the program since 2003. These included update of the CSPP, implementation of Certification and Accreditation on schedule, expansion of virtual LAN (VLAN) technology to further segment the internal network, implementation of public key certificates on external systems, implementation of NIST SP 800-26 guidance for program self assessments, completion of control analysis and basic documentation for desktop systems, enhanced training for Linux system administration, and completion of a program peer review. These improvement are keeping the Ames Lab program current and in compliance with recent additions to program requirements.

The final section of the self assessment provides a broad view of the program and plans for further improvements in 2005. One item to note here is the completion of a Privacy Impact Assessment. This requirement was stated in the Office of Science Program Cyber Security Plan (PSCP) issued in

September 2004. It is notable that Ames Laboratory has promptly addressed this requirement.

- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

9. Counterintelligence

DOE has determined the Laboratory's performance in the functional area of Counterintelligence to be rated as "Excellent".

- Ames Laboratory, in coordination with the Chicago Office of Counterintelligence (CH-CI), had developed a very effective Annual CI Awareness Training Program, which allowed the laboratory to have 100% coverage.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Excellent".

12. Human Resources

DOE has determined the Laboratory's performance in the functional area of Human Resources to be rated as "Excellent".

- Laboratory Management and the HR staff continue to encourage the use of a formal appraisal process which resulted in the completion of nearly 85% participation. Although participation was slightly down from last year Laboratory Management continues their commitment to encourage this program. A random sampling of 10 individual performance plans shows clear program/project accomplishment(s), and provides clear performance feedback to the employee.
- The Laboratory recruitment program is directly aligned with the recruitment program used by ISU with few differences. The process appears to provide adequate assurance that the knowledge, skills, and abilities of the position are appropriately reflected in the job solicitation and the means used adequately attract a high quality pool of applicants. In summary the recruitment program appears to stand ready to recruit high quality candidates and effectively support the staffing needs of the Laboratory's mission as vacancies occur at the Laboratory.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Excellent".

13. Personal Property

DOE has determined the Laboratory's performance in the functional area of Personal Property Management to be rated as "Excellent".

- The Ames Laboratory Property Services Office assessment utilized the DOE Contractor Personal Property Management Balanced Scorecard Performance Measurement and Management Program as the standard to assess their CY 2004 performance. The Laboratory followed the DOE Contractor Personal

Property Management BSC Performance Measurement and Management Program, utilizing the guidelines BSC Self-Assessment (BSCSA) report. All of the following reporting requirements are being met:

DOE BSC Program
Annual Property Management reports
HQ Data Calls

- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Excellent".

14. Communications & Trust

DOE has determined the Laboratory's performance in the functional area of Communications & Trust to be rated as "Outstanding".

- Ames is diligent about regularly contributing to the CH Communications report to HQ regarding the ongoing operations, and the two groups regularly communicate on non-routine public affairs activities. The Ames Public Affairs Office should re-double its efforts to keep AMSO and the Office of the Manager-Communications informed of all activities occurring at the Laboratory.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

15. Infrastructure Energy Management

DOE has determined the Laboratory's performance in the functional area of Infrastructure Energy Management to be rated as "Outstanding".

The Laboratory has implemented and maintained a program to promote efficient use of natural resources through the purchase of recycled content products. Waste management and pollution prevention activities/waste minimization programs continued to demonstrate successful results.

- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

16. Facilities Management

DOE has determined the Laboratory's performance in the functional area of Facilities Management to be rated as "Outstanding".

- Facilities Management covers both the Maintenance and Real Property Management functional areas, which are discussed in No. 17 and Real Property below. Based on the Laboratory's performance in these areas, and taking into consideration the circumstances discussed below, DOE assigns an overall rating of "Outstanding" for the Facilities Management Area.
- There are two measures Real Property Management. One measure is to maintain a reliable real property database. The Laboratory does this by ensuring that information reported in the Facility Information Management

System (FIMS) is current, accurate and complete. The completeness and timeliness of the Laboratory's data is reflected in the FIMS status reports. For CY 2004 all required data fields for buildings, land, and other structures and facilities within FIMS were current, complete and accurate, earning a rating of "Outstanding" for this measure.

- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

17. Maintenance

DOE has determined the Laboratory's performance in the functional area of Maintenance to be rated as "Outstanding".

- DOE has assessed Ames performance in this area as "Outstanding", based on reductions in maintenance backlog and innovative continuous improvements achieved by the Laboratory.
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Outstanding".

18. Work for Others

DOE has determined the Laboratory's performance in the functional area of Work for Others to be rated as "Excellent".

- Ames Laboratory completed their self-assessment in accordance with the Self Assessment Agreement, which was included in Appendix B of the contract. The Ames Site Office WFO/CRADA point of contact has reviewed their self-assessment, takes no issue with the information provided, and agrees with the Laboratory's self-assessment rating of "excellent".
- The DOE rating as stated above is consistent with the Laboratory's self-assessment rating of "Excellent".

FEE DETERMINATION:

The Ames Laboratory achieved an "Outstanding" rating for the Science Programs. Critical Operations consisted of two functional areas: Environmental Safety and Health and Strategic Guidance, Oversight and Management. Each Functional Area was rated respectively as "Outstanding" and "Excellent". The enclosed Performance Fee Matrix uses these performance ratings to calculate a CY 2004 fee of \$97,000.

Performance Fee Matrix
Ames Laboratory
Contract No. W-7505-ENG-82
January 1, 2004 through December 31, 2004

